

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Tipper Tie Inc

North Carolina Manufacturing Extension Partnership

Tipper Tie Reduces Inventory Using Lean Manufacturing Techniques

Client Profile:

The Tipper Tie Company (a Dover Industries Company) of Apex, North Carolina is a leader in clip closure technology for the packaging industry. Over the last 50 years, Tipper Tie has grown from a small company into an international organization providing package closing technology to customers all over the world and employing 195 people. Tipper Tie develops and manufactures a wide variety of packaging equipment, principally employing a clip as the means of closure for a flexible package.

Situation:

Tipper Tie wanted to become more efficient at its manufacturing facilities. For assistance, the company contacted the Industrial Extension Service (IES), a NIST MEP network affiliate, at North Carolina State University about its lean manufacturing training program. IES and seven participating Tipper Tie employees accepted management's challenge to reduce the assembly area by 60 percent, eliminate finished goods while maintaining a zero to two-day lead-time for the Champion Clipper line, and create capacity to build between 60 and 100 clippers per month with a two-person crew.

Solution:

IES presented a proposal to train 20 people in lean manufacturing practices and a proposal for a three-day kaizen event at the Apex plant. The company accepted these proposals and held the training in early August 2001. Later that month IES held the kaizen event in the Champion Clipper assembly area. The team took over a conference room and proceeded to study the procedures and processes then in place. IES and the Tipper Ties team made time studies of the assembly operation, prepared a scale diagram of the department, assessed inventory needs, and documented the whole Champion Clipper manufacturing process.

When improvements were started, the inventory was reduced dramatically, freeing up square feet and eliminating shelves. New assembly methods were implemented and documented and the throughput of the area was proven with two operators. The improved lead-time that resulted from this kaizen allowed the company to remove 18 units from the warehouse for a \$90,000 inventory reduction. The shop is confident that the units can be assembled and shipped with "same day" service using this new system.

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Results:

Reduced the assembly area from 1,065 square feet to 347 square feet--a total of 67 percent.

Established an average of one and one-half hours to produce and package a champion clipper.

Made same-day shipments for kanban clippers possible.

Created capacity of 117 clippers per month.

Testimonial:

"We have used the experience with the Champion Clipper to implement kaizen events throughout our plant and the office area. [With the help of the Industrial Extension Service] Tipper Tie Inc. is well on the way to becoming a lean manufacturer."

John Picolla, Purchasing Department